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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,243	06/05/2001	Hon Wah Chin	014940-001510US	7315

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EXAMINER

TRAN, DZUNG D

ART UNIT	PAPER NUMBER
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2633

9

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/875,243

Applicant(s)

CHIN ET AL.

Examiner

Dzung D Tran

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 05/19/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-10,12 and 14-18 is/are rejected.
- 7) ☒ Claim(s) 2,3,11,13 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Specification***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-10, 12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson US patent no. 6,249,510 in view of Milton US patent no. 6,084,694.

Regarding claims 1 and 12, Thompson discloses an optical network comprising:

first and second adjacent nodes (figure 1, elements 100-1, 100-2);

a first fiber (120) configured to carry information in a clockwise direction from the first node (100-1) to the second node (100-2), the first fiber having wavelength capacity allocated to working and protection traffic (col. 2, lines 3-10), the working and protection wavelength capacities in the first fiber being respectively assigned to first (channels 1-24) and second (channels 25-48) sets of wavelengths; and

Art Unit: 2633

a second fiber (110) configured to carry information in a counter-clockwise direction from the second node (100-2) to the first node (100-1), the second fiber having wavelength capacity allocated to working and protection traffic (col. 2, lines 3-10), the working and protection wavelength capacities in the second fiber being respectively assigned to the second (channels 25-48) and first (channels 1-24) sets of wavelengths. Thompson differs from claims 1 and 12 of the present invention in that Thompson does not specific disclose the first and second set of wavelengths are within a wavelength range and a portion of the wavelength range is not assigned to either the first or second set of wavelengths, the unassigned portion being used to provide isolation between the working and protection wavelength capacities of each of the first and second fibers. Milton, in the same field of endeavor, discloses the WDM ring network consists of two counter rotating rings 2, 3 containing a plurality of nodes 4, 5, 6, 7, 8. The ring 2, 3 physically consists of optical fibers, which may carry a plurality of wavelengths organized into bands (col. 3, lines 30-35), figure 2 discloses optical fibers 2, 3 carry eight bands, each band consists of 4 wavelength channels (for example, the first set and second set, each consists of 4 wavelength bands or 16 wavelength channels) is separated by a guard band (same as a portion of the wavelength range is not assigned) (see figure 2a, 2b, col. 4, lines 24-60). At the time of the invention was made, it would have been obvious to a person of ordinary skill in the art to include the teaching of Milton in the system of Thompson. One of ordinary skill in the art would have been motivated to do this in order to separate or isolate the set of wavelength bands,

Art Unit: 2633

thus it easier for filtering a group of wavelengths and add/drop a group of wavelengths into the optical system.

Regarding claims 4, 5 and 14, Milton discloses the optical fibers, which may carry a plurality of wavelengths organized into bands (col. 3, lines 30-35), figure 2 discloses optical fibers 2, 3 carry eight bands, each band consists of 4 wavelength channels (for example, the first set and second set, each consists of 4 wavelength bands or 16 wavelength channels) is separated by a guard band (same as a portion of the wavelength range is not assigned) (see figure 2a, 2b, col. 4, lines 24-60), the unassigned portion comprising a single band (for example a single band from 1.58536  $\mu\text{m}$  to 1.58369  $\mu\text{m}$ ) or two wavelength channels (for example 1.58536  $\mu\text{m}$  or 1.58369  $\mu\text{m}$  in figure 2a). Furthermore, whether a band comprises two or three channels is merely an engineering design choice.

Regarding claims 6 and 15, Thompson, in figure 1, further discloses in a working state, a first fiber (120) configured to carry information in a clockwise direction from the first node (100-1) to the second node (100-2) and in a protection state, a second fiber (110) configured to carry information in a counter-clockwise direction from the second node (100-2) to the first node (100-1).

Regarding claims 7 and 16, Thompson, in figure 1, further discloses the optical network is configured to switch from the working state to the protection state in response to a fiber failure or fiber cut (col. 4, lines 10-39).

Art Unit: 2633

Regarding claim 8, Thompson, in figure 2, clearly discloses each node includes a first multiplexing (25-2)/demultiplexing (15-2) and a second multiplexing (25-1)/demultiplexing (15-1) operate to send working traffic and receive protection traffic over the working and protection wavelength capacities, respectively of the first fiber and the second fiber or vice versa (col. 3, lines 1-57).

Regarding claims 9, 10, 17 and 18, Milton discloses filters 10, 11, 18, 19 operable to partition the working and protection wavelength capacities in a corresponding one of the first and second fibers (figures 3, 4, col. 2, lines 43-67, col. 4, line 63 to col. 5, line 9).

3. Claims 2, 3, 11, 13 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

Art Unit: 2633

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung Tran whose telephone number is (703) 305-0932.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Supervisor, Jason Chan, can be reached on (703) 305-4729.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



**M. R. SEDIGHIAN  
PRIMARY EXAMINER**